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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,038	11/12/2001	Sunao Takatori	2222.6080000	1387

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EXAMINER

HALIYUR, VENKATESH N

ART UNIT	PAPER NUMBER
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2476

MAIL DATE	DELIVERY MODE
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01/21/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/054,038	Applicant(s) TAKATORI ET AL.	
	Examiner VENKATESH HALIYUR	Art Unit 2476	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 (2-3,5-6,11,17,19 are canceled) is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,7-10,12-16,18 and 20-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/10/2009 has been entered.

2. The amendment filed on 11/10/2009 has been fully considered. However the amendments necessitated a new search to be performed and therefore a new ground(s) of rejection has been made with newly found references. Therefore the allowability of claims indicated via previous office communication has been withdrawn. Rejections follow.

3. Claims 1-23 are pending in the application. Claims 2-3, 5-6, 11, 17, 19 are canceled.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 12-15, and 22 are directed to non-statutory subject matter. Claims 12-15, 22, are non-statutory because in order for a computer program or software instructions to be statutory it must be stored or embodied in a computer readable medium and the said instructions must be executed by a processor to perform the desired function or transformation. The phrase(s) or word “instructions comprising:” in the preamble fails to meet the guidelines set forth therein. Thus the claimed invention in claims 12-15, 22 is claiming nothing but a software application. It is well established that a software application, i.e. computer program, per se is not physical “thing”. The computer program is neither computer components nor statutory processes. Such claimed computer program does not define any structural and functional interrelationship between the computer program and the rest of the computer, which permits the computer program’s functionality to be realized. Thus claims 12-15, 22 is non statutory and is claiming a computer program. Appropriate corrections are required to these claims.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1,4,7-9,12-13,15-16,18,20-23 are rejected under 35 U.S.C.103(a) as being unpatentable over Alfano et al [US Pat: 6,094,423] and Golestani [US Pat: 6,965,943] further in view of Ranganathan et al [US Pat: 5,931,961].

Regarding claims 1, and 4, Alfano et al in the invention of “Wireless Protocol Method and Apparatus Supporting Transaction Requests with Variable Length Responses” disclosed a device (**Fig 6**) comprising:

a transmitter (**XMTR, item 51 of Fig 6**) configured to transmit a query to a destination communication device, the query about packet sizes that are recognizable by the destination communication device (**server, col 5, lines 45-55**).

a receiver (**RCVR, item 54 of Fig 6**) to receive information from the destination communication device (**server**), the received information corresponding to packet sizes that are recognizable by the destination communication device in response to the query (**col 5, lines 56-67, col 3, lines 25-27**).

a determining device (**processor, item 58 of Fig 6**) configured to select an appropriate packet size (**MTU, Maximum transfer unit size**) for transmission data to be packetized (**col 5, lines 45-67, col 6, lines 1-16**), the appropriate packet size being selected according to the received information corresponding to the packet sizes that are recognizable by the destination communication device (**server response indicates the packet size, col 6, lines 17-23**) ; and a packet generator (**processor**) configured to packetize the transmission data based on the packet size determined by said determining device (**processor segments packets if packet size exceeds MTU, col 6, lines 24-54, Fig 7**) configured to store information with respect to the packet sizes that are recognizable by the destination device (**col 5, lines 5-17**) and further disclosed a storage device (**RAM, item 66 of Fig 6**) configured to store information with respect to the packet sizes that are recognizable by the destination communication device (**col 5, lines 62-67, col 6, lines 1-4**). Alfano disclosed the feature of a determining device configured to select a most appropriate packet size for transmission data to be packetized which inherently suggest that transmitting varying size data packets correspondingly changes the amount of transmission data or the transmission rate, however, Golestani disclosed a method wherein a receiving size (apparatus) requests the transmitting side to transmit data at a transmission rate that is recognizable by the receiving side (**col 3, lines 12-35**). Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of receiving size requesting the transmitting side to transmit data at a transmission rate that is recognizable by the receiving side as taught Golestani in the system of Alfano et

al to include the feature of transmitting the most appropriate packet size being selected according to the received information corresponding to the packet sizes that are recognizable by the destination communication device.

Both Alfano and Golestani fail to disclose if a retransmission request occurs while packets are being transmitted, determine a smaller appropriate packet size than the previously selected most appropriate packet size. However, Ranganathan et al disclosed a method if a retransmission request occurs while packets are being transmitted; determine a smaller appropriate packet size than the previously selected most appropriate packet size (**col 4, lines 63-67, col 5, lines 1-60, Fig 2**). Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method if a retransmission request occurs while packets are being transmitted, determine a smaller appropriate packet size than the previously selected most appropriate packet size as taught by Ranganathan et al in the system of Alfano et al as modified by Golestani to include the feature of if a retransmission request occurs while packets are being transmitted, determine a smaller appropriate packet size than the previously selected most appropriate packet size. One is motivated in order to provide a mechanism for the receiving side to request transmitting side to transmit data packet sizes to achieve an optimal transmission rate for error, delay and congestion control.

Regarding claims 7, and 9, Alfano et al disclosed a method for determining packet sizes for transmission data to be packetized and transmitted from a

communication terminal device (**communication device, item 50, Fig 6**) to a destination communication device (**server**), the method comprising:

transmitting (**XMTR, item 51 of Fig 6**) a query to the destination communication device, the query about packet sizes that are recognizable by the destination communication device (**server, col 5, lines 45-63**).

receiving information (**RCVR, item 54 of Fig 6**) from the destination communication device (**server**), the received information corresponding to packet sizes that are recognizable by the destination communication device in response to the query (**col 5, lines 56-67, col 6, lines 1-16, col 3, lines 25-27**).

selecting a packet size according to the received information corresponding to the packet sizes that are recognizable by the destination device (**server response indicates the packet size, col 6, lines 17-23**) and packetizing said transmission data according to the packet size selected (**processor segments packets if packet size exceeds MTU, col 6, lines 24-54**) and determining whether the information regarding packet sizes recognizable by said destination communication device (**col 5, lines 62-67, col 6, lines 1-4**) is stored in a memory of said communication terminal device (**RAM, item 66 of Fig 6, col 6, lines 5-23, col 5, lines 26-29, Fig 7**). Alfano disclosed the feature of a determining device configured to select a most appropriate packet size for transmission data to be packetized which inherently suggest that transmitting varying size data packets correspondingly changes the amount of transmission data or the transmission rate, however, Golestani disclosed a method wherein a receiving size (apparatus) requests the transmitting side to transmit data at a transmission rate that is

recognizable by the receiving side (**col 3, lines 12-35, Fig 4**). Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of receiving size requesting the transmitting side to transmit data at a transmission rate that is recognizable by the receiving side as taught Golestani in the system of Alfano et al to include the feature of transmitting the most appropriate packet size being selected according to the received information corresponding to the packet sizes that are recognizable by the destination communication device.

Both Alfano and Golestani fail to disclose if a retransmission request occurs while packets are being transmitted; determine a smaller appropriate packet size than the previously selected most appropriate packet size. However, Ranganathan et al disclosed a method if a retransmission request occurs while packets are being transmitted, determine a smaller appropriate packet size than the previously selected most appropriate packet size (**col 4, lines 63-67, col 5, lines 1-60, Fig 2**). Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method if a retransmission request occurs while packets are being transmitted, determine a smaller appropriate packet size than the previously selected most appropriate packet size as taught by Ranganathan et al in the system of Alfano et al as modified by Golestani to include the feature of if a retransmission request occurs while packets are being transmitted, determine a smaller appropriate packet size than the previously selected most appropriate packet size. One is motivated in order to provide a mechanism for the receiving side to request transmitting side to transmit data

packet sizes to achieve an optimal transmission rate for error, delay and congestion control.

Regarding claims 8 and 13 Alfano et al disclosed transmitting said packetized transmission data from said communication terminal device to said destination communication device **(col 5, lines 45-51)**.

Regarding claims 12, and 15, Alfano et al disclosed comprising a tangible computer readable medium having instructions stored thereon **(items 11 and 14, Fig 1)**, the instructions comprising:

instructions for transmitting **(XMTR, item 51 of Fig 6)** a query to the destination communication device, the query directed to packet sizes that are recognizable by the destination communication device **(server, col 5, lines 45-55)**.

instructions for receiving information **(RCVR, item 54 of Fig 6)** from the destination communication device **(server)**, the received information corresponding to packet sizes that are recognizable by the destination communication device in response to the query **(col 5, lines 56-67, col 3, lines 25-27)**.

Instructions for selecting an appropriate packet size for transmission data to be packetized, the appropriate packet size being selected according to the received information corresponding to the packet sizes that are recognizable by the destination device **(server response indicates the packet size, col 6, lines 17-23)** and instructions for packetizing said transmission data according to the packet size selected **(processor segments packets if packet size exceeds MTU, col 6, lines 24-54)** and instructions for determining whether the information regarding packet sizes recognizable

Art Unit: 2476

by said destination communication device (**col 5, lines 62-67, col 6, lines 1-4**) is stored in a memory of said communication terminal device (**RAM, item 66 of Fig 6, col 6, lines 5-23, col 5, lines 26-29, Fig 7**). Alfano disclosed the feature of a determining device configured to select a most appropriate packet size for transmission data to be packetized which inherently suggest that transmitting varying size data packets correspondingly changes the amount of transmission data or the transmission rate, however, Golestani disclosed a method wherein a receiving size (apparatus) requests the transmitting side to transmit data at a transmission rate that is recognizable by the receiving side (**col 3, lines 12-35, Fig 4**). Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of receiving size requesting the transmitting side to transmit data at a transmission rate that is recognizable by the receiving side as taught Golestani in the system of Alfano et al to include the feature of transmitting the most appropriate packet size being selected according to the received information corresponding to the packet sizes that are recognizable by the destination communication device.

Both Alfano and Golestani fail to disclose if a retransmission request occurs while packets are being transmitted; determine a smaller appropriate packet size than the previously selected most appropriate packet size. However, Ranganathan et al disclosed a method if a retransmission request occurs while packets are being transmitted, determine a smaller appropriate packet size than the previously selected most appropriate packet size (**col 4, lines 63-67, col 5, lines 1-60, Fig 2**). Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention

was made to use the method if a retransmission request occurs while packets are being transmitted, determine a smaller appropriate packet size than the previously selected most appropriate packet size as taught by Ranganathan et al in the system of Alfano et al as modified by Golestani to include the feature of if a retransmission request occurs while packets are being transmitted, determine a smaller appropriate packet size than the previously selected most appropriate packet size. One is motivated in order to provide a mechanism for the receiving side to request transmitting side to transmit data packet sizes to achieve an optimal transmission rate for error, delay and congestion control.

Regarding claims 16, and 18, Alfano et al disclosed a communication terminal device (**communication device, item 50, Fig 6**) configured to determine packet sizes for transmission data to be packetized and transmitted to a destination communication device (**server**), the communication terminal device (**Figs 6/7**) comprising:

A transmitter configured to transmit (**XMTR, item 51 of Fig 6**) a query to the destination communication device, the query about packet sizes that are recognizable by the destination communication device (**server, col 5, lines 45-55**).

means for receiving information (**RCVR, item 54 of Fig 6**) from the destination communication device (**server**), the received information corresponding to packet sizes that are recognizable by the destination communication device in response to the query (**col 5, lines 56-67, col 3, lines 25-27**).

means for selecting an appropriate packet size for transmission data to be packetized transmission data, the appropriate packet size being selected according to

the received information corresponding to the packet sizes that are recognizable by the destination device (**server response indicates the packet size, col 6, lines 17-23**) and means for packetizing the transmission data according to the packet size selected (**processor segments packets if packet size exceeds MTU, col 6, lines 24-56**) and means for storing information with respect to the packet sizes that are recognizable by the destination communication device (**RAM, item 66 of Fig 6, col 6, lines 5-23, col 5, lines 26-29, Fig 7**). Alfano disclosed the feature of a determining device configured to select a most appropriate packet size for transmission data to be packetized which inherently suggest that transmitting varying size data packets correspondingly changes the amount of transmission data or the transmission rate, however, Golestani disclosed a method wherein a receiving size (apparatus) requests the transmitting side to transmit data at a transmission rate that is recognizable by the receiving side (**col 3, lines 12-35, Fig 4**). Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of receiving size requesting the transmitting side to transmit data at a transmission rate that is recognizable by the receiving side as taught Golestani in the system of Alfano et al to include the feature of transmitting the most appropriate packet size being selected according to the received information corresponding to the packet sizes that are recognizable by the destination communication device. Both Alfano and Golestani fail to disclose if a retransmission request occurs while packets are being transmitted; determine a smaller appropriate packet size than the previously selected most appropriate packet size. However, Ranganathan et al disclosed a method if a retransmission request occurs while packets

Art Unit: 2476

are being transmitted, determine a smaller appropriate packet size than the previously selected most appropriate packet size (**col 4, lines 63-67, col 5, lines 1-60, Fig 2**).

Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method if a retransmission request occurs while packets are being transmitted, determine a smaller appropriate packet size than the previously selected most appropriate packet size as taught by Ranganathan et al in the system of Alfano et al as modified by Golestani to include the feature of if a retransmission request occurs while packets are being transmitted, determine a smaller appropriate packet size than the previously selected most appropriate packet size. One is motivated in order to provide a mechanism for the receiving side to request transmitting side to transmit data packet sizes to achieve an optimal transmission rate for error, delay and congestion control.

Regarding claims 20-23, wherein the appropriate packet size is further selected according to current traffic congestion of a communication media that the transmission data is to be transmitted over (**col 6, lines 24-36**).

7. Claims 10, 14 are rejected under 35 U.S.C.103(a) as being unpatentable over Alfano et al [US Pat: 6,094,423] and Golestani [US Pat: 6,965,943] and Ranganathan et al [US Pat: 5,931,961] further in view of Roobal et al [US Pat: 6,307,867].

Regarding claims 10, 14, Golestani, Alfano disclosed packetizing and retransmitting packets size after the transmitting to the receiver and Ranganathan disclosed repacketizing different packet size and retransmitting to the receiver but

Golestani, Alfano, Ranganathan fail to positively disclose the feature of generating the retransmission request requesting a different packet size to the destination communication device. However, Roobal et al disclosed a method where the receiver generates a retransmission request to the sending device requesting a different packet size to the receiver (**col 1, lines 34-49, col 7, lines 26-59, Figs 4,10**).

Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of generating a retransmission request by the receiver to the sender to retransmit data packet with a different packet size than the previously selected most appropriate packet size as taught by Roobal et al in the system of Alfano et al as modified by Golestani and Ranganathan et al to include the feature of generating retransmission requests by the receiver to the sender to retransmit smaller appropriate packet size than the previously selected most appropriate packet size. One is motivated in order to provide a mechanism for the receiving side to request transmitting side to transmit data packet sizes to achieve an optimal transmission rate for error, delay and congestion control.

Response to Arguments

8. Applicant's argument, see remarks filed on 11/10/2009 with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616.

The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached @ (571)-272-3579. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

/Venkatesh Haliyur/

Examiner, Art Unit 2476

/Ayaz R. Sheikh/

Supervisory Patent Examiner, Art Unit 2476